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| APPLICATION NO.  | FILING DATE | FIRST NAMED INVENTOR   | ATTORNEY DOCKET NO.      | CONFIRMATION NO. |
|--|-------------|------------------------|--------------------------|------------------|
| 10/537,122   | 12/06/2005  | Johannes Georg Schaede | 1204.1112101             | 8386             |
| 28075 7590 05/23/2007<br>CROMPTON, SEAGER & TUFTE, LLC<br>1221 NICOLLET AVENUE |             |                        | EXAMINER                 |                  |
|  |             |                        | STAFIRA, MICHAEL PATRICK |                  |
| SUITE 800<br>MINNEAPOLIS, MN 55403-2420  |             |                        | ART UNIT                 | PAPER NUMBER     |
|  |             |                        | 2886                     |                  |
|  |             | ,                      |                          |                  |
|  |             |                        | MAIL DATE                | DELIVERY MODE    |
|  |             |                        | 05/23/2007               | PAPER            |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

|  | Application No.  | Applicant(s)   |  |  |  |  |
|--|--|--|--|--|--|--|
|  | 10/537,122   | SCHAEDE, JOHANNES GEORG  |  |  |  |  |
| Office Action Summary  | Examiner   | Art Unit   |  |  |  |  |
|  | Michael P. Stafira   | 2886   |  |  |  |  |
| The MAILING DATE of this communication app<br>Period for Reply   | ears on the cover sheet with the   | correspondence address   |  |  |  |  |
| A SHORTENED STATUTORY PERIOD FOR REPLY WHICHEVER IS LONGER, FROM THE MAILING DA  - Extensions of time may be available under the provisions of 37 CFR 1.13 after SIX (6) MONTHS from the mailing date of this communication.  - If NO period for reply is specified above, the maximum statutory period w  - Failure to reply within the set or extended period for reply will, by statute, Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b). | ATE OF THIS COMMUNICATIO 36(a). In no event, however, may a reply be to will apply and will expire SIX (6) MONTHS from a cause the application to become ABANDON | N. mely filed  n the mailing date of this communication. ED (35 U.S.C. § 133). |  |  |  |  |
| Status .   |  |  |  |  |  |  |
| 1) Responsive to communication(s) filed on   |  |  |  |  |  |  |
|  | action is non-final.   |  |  |  |  |  |
| ,— .   | Since this application is in condition for allowance except for formal matters, prosecution as to the merits is  |  |  |  |  |  |
| closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213.  |  |  |  |  |  |  |
| Disposition of Claims  |  |  |  |  |  |  |
| 4)⊠ Claim(s) <u>1-11</u> is/are pending in the application.  |  |  |  |  |  |  |
| 4a) Of the above claim(s) is/are withdrawn from consideration.   |  |  |  |  |  |  |
| 5) Claim(s) is/are allowed.  |  |  |  |  |  |  |
| 6)⊠ Claim(s) <u>1-11</u> is/are rejected.  |  |  |  |  |  |  |
| 7) Claim(s) is/are objected to.  |  |  |  |  |  |  |
| 8) Claim(s) are subject to restriction and/or  | r election requirement.  |  |  |  |  |  |
| Application Papers   | -  |  |  |  |  |  |
| 9) The specification is objected to by the Examine   | г.   |  |  |  |  |  |
| 10)⊠ The drawing(s) filed on <u>02 June 2005</u> is/are: a)⊠ accepted or b)□ objected to by the Examiner.  |  |  |  |  |  |  |
| Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  |  |  |  |  |  |  |
| Replacement drawing sheet(s) including the correct   | · · · · · · · · · · · · · · · · · · ·  |  |  |  |  |  |
| 11) The oath or declaration is objected to by the Ex   | aminer. Note the attached Office   | e Action or form PTO-152.  |  |  |  |  |
| Priority under 35 U.S.C. § 119   |  |  |  |  |  |  |
| 12) Acknowledgment is made of a claim for foreign  | priority under 35 U.S.C. § 119(a   | a)-(d) or (f).   |  |  |  |  |
| a)⊠ All b)□ Some * c)□ None of:  |  | V.   |  |  |  |  |
| 1. Certified copies of the priority documents  |  |  |  |  |  |  |
| 2. Certified copies of the priority documents  |  |  |  |  |  |  |
| 3. Copies of the certified copies of the prior   | •  | ved in this National Stage   |  |  |  |  |
| application from the International Bureau  | * **   | - d  |  |  |  |  |
| * See the attached detailed Office action for a list   | or the certified copies not receiv   | ea.  |  |  |  |  |
| , •  |  | ·  |  |  |  |  |
| Attachment(s)  |  |  |  |  |  |  |
| 1) Notice of References Cited (PTO-892)  4) Interview Summary (PTO-413)  |  |  |  |  |  |  |
| 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO/SB/08)   | Paper No(s)/Mail D 5) Notice of Informal   |  |  |  |  |  |
| Paper No(s)/Mail Date <u>6/2/2005</u> .  | 6) Other:  | • •  |  |  |  |  |
| D. Date of Trademark Office  |  |  |  |  |  |  |

## **DETAILED ACTION**

## Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

# Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

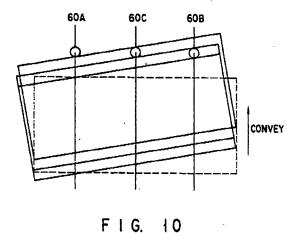
- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
- 3. Claims 1, 5-7, 9, 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Sakamori (\*257).

### Claim 1

Sakamori (\*257) discloses providing a first trigger (Fig. 10, Ref. 60a) at a selected first location along the direction of displacement of the substrate for detecting the passage of an edge of the substrate at said first location (Col. 5, lines 51-59); providing a second trigger (Fig. 10, Ref. 60B) at a selected second location after said first trigger along the direction of displacement of the substrate for detecting the passage of an edge of the substrate at said second location (Col. 5, lines 51-59); providing at least a first checkpoint detector (Fig. 10, Ref. 60c) at a selected third location between said first (Fig. 10, Ref. 60a) and second triggers (Fig. 10, Ref. 60b) along the direction of displacement of the substrate (See Fig. 10), said at least first checkpoint detector

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(Fig. 10, Ref. 60c) being adapted to detect the passage of said edge of the substrate at a selected place along said edge which is different than the place at which said first (Fig. 10, Ref. 60a) and second triggers (Fig. 10, Ref. 60b) are adapted to detect the passage of said edge (Col. 10, lines 6-62); detecting the passage of said edge of the substrate at said selected locations by means of said first trigger (Fig. 10, Ref. 60a), said at least first checkpoint detector (Fig. 10, Ref. 60c) and said second trigger (Fig. 10, Ref. 60b); controlling whether the passage of said edge of the substrate was detected by said at least first checkpoint detector (Fig. 10, Ref. 60c) after detection by said first trigger (Fig. 10, Ref. 60a) and before detection by said second trigger (Fig. 10, Ref. 60b); and generating an integrity check failed message in case the passage of said edge of the substrate was not detected by said at least first checkpoint detector (Fig. 10, Ref. 60c) after detection by said first trigger (Fig. 10, Ref. 60a) and before detection by said second trigger (Fig. 10, Ref. 60c) after detection by said first trigger (Fig. 10, Ref. 60a) and before detection by said second trigger (Fig. 10, Ref. 60b)(Col. 11, lines 1-47).



## Claim 5

Sakamori ('257) discloses the edge is the leading edge and/or the trailing edge of the substrate (See Fig. 10).

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### Claim 6

Sakamori ('257) further discloses the detection is made by optical means (Col. 5, lines 51-59).

## Claim 7

Sakamori ('257) discloses a first trigger (Fig. 10, Ref. 60a) arranged at a selected first location along the direction of displacement of the substrate for detecting the passage of an edge of the substrate at said first location (See Fig. 10); a second trigger (Fig. 10, Ref. 60b) arranged at a selected second location after said first trigger along the direction of displacement of the substrate for detecting the passage of an edge of the substrate at said second location (See Fig. 10) (Col. 10, lines 6-62); at least a first checkpoint detector (Fig. 10, Ref. 60c) arranged at a selected third location between said first (Fig. 10, Ref. 60a) and second triggers (Fig. 10, Ref. 60b) along the direction of displacement of the substrate (See Fig. 10), said at least first checkpoint detector (Fig. 10, Ref. 60c) being adapted to detect the passage of said edge of the substrate at a selected place along said edge which is different than the place at which said first (Fig. 10, Ref. 60a) and second triggers (Fig. 10, Ref. 60b) are adapted to detect the passage of said edge; and a computer element (Fig. 4, Ref. 100) adapted to control whether the passage of said edge of the substrate was detected by said at least first checkpoint detector (Fig. 10, Ref. 60c) after detection by said first trigger (Fig. 10, Ref. 60a) and before detection by said second trigger (Fig. 10, Ref. 60b)(Col. 11, lines 1-47).

### Claim 9

Sakamori ('257) discloses that said triggers and checkpoint detectors are optical detectors (Col. 5, lines 51-55).

Claim 11

Sakamori ('257) discloses at least one control device (Fig. 4, Ref. 100).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are

such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the

manner in which the invention was made.

5. Claims 2-4, 8, 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Sakamori ('257).

Claim 2 & 8

Sakamori ('257) discloses the claimed invention except for two or more checkpoint

detectors. It would have been obvious to one having ordinary skill in the art at the time the

invention was made to combine Sakamori ('257) with the two or more checkpoint detectors since

it was well known in the art that having multiple checkpoint detectors increases the accuracy of

detecting a misalignment of an object, therefore increasing the reliability of the measurement.

Claim 3

Sakamori ('257) discloses the integrity check failed message is generated in case the

passage of said edge of the substrate was not detected by one of said checkpoint detectors after

detection by said first trigger and before detection by said second trigger (Col. 11, Lines 1-54).

Claim 4

Sakamori ('257) discloses the claimed invention except for the two checkpoints are located to the corners of the substrate. It would have been obvious to one having ordinary skill in the art at the time the invention was made to combine Sakamori ('257) with the two checkpoints located at the corners of the substrate since it was well known in the art that having the sensors at the corners provides a more accurate measurement of misalignment, therefore increasing reliability of the measurement.

## Claim 10

Sakamori ('257) discloses the claimed invention except for the triggers and checkpoints are light emitting diodes. It would have been obvious to one having ordinary skill in the art at the time the invention was made to combine Sakamori ('257) with the light emitting diodes since it was well known in the art that using light emitting diodes decreases the amount of maintenance needed, therefore increasing the reliability of the optical apparatus.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael P. Stafira whose telephone number is 571-272-2430. The examiner can normally be reached on 4/10 Schedule Mon.-Thurs..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tarifur Chowdhury can be reached on 571-272-2800 ext. 77. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <a href="http://pair-direct.uspto.gov">http://pair-direct.uspto.gov</a>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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May 16, 2007